

## Webinar 2: Carbon Capture and Storage for Waste to Energy: Evaluating climate impacts and technologies

### Speaker bios:



#### **Mathieu Lucquiaud, University of Sheffield**

Mathieu is Professor of Clean Energy with Carbon Capture and Storage at the University of Sheffield. He has worked on CO<sub>2</sub> capture technologies since 2005, in particular, engineering solutions for cost reduction, their integration to thermal power plants, hydrogen production, industrial processes and waste incinerators, and flexible operation to meet demands of zero carbon energy systems.

He is a Principal Investigator of the NEWEST-CCUS, a 3.5-year European project funded by ACT, aiming at derisking CO<sub>2</sub> capture in Waste to Energy plants and assessing their contribution to atmospheric carbon dioxide removal.



#### **Dan Su, The University of Edinburgh**

Dan's background is in Building environment and equipment engineering. She completed an MSc in Sustainable Energy Systems at the University of Edinburgh in 2013. She used to work as a System application engineer providing industrial heat pump solutions for CHP plants in China. She is currently in her last year of a PhD at the University of Edinburgh. Her research focuses on negative emissions through thermal integrations of Waste to Energy plants with Post-combustion CO<sub>2</sub> capture technologies.



#### **Iain Struthers, The University of Edinburgh**

Iain is a chartered mechanical engineer who has worked the main low carbon energy industries (offshore wind, marine, nuclear and hydrogen energy storage) for a number of years. He is currently working towards a PhD at University of Edinburgh researching the life cycle impacts of floating wind and wave energy in GB in future energy scenarios. His life cycle assessment work for the NEWEST project builds on the work of his colleague Laura Herraiz Palomino, and focusses on uncertainty and sensitivity analyses.



#### **Dr Hasan Muslemani, University of Sheffield & Oxford Institute for Energy Studies**

Dr Hasan Muslemani is a Research Associate in CCS at the University of Sheffield and Head of Carbon Management Research at the Oxford Institute for Energy Studies (OIES). He holds a PhD in Carbon Finance and has a career spanning multiple disciplines, including natural sciences, carbon markets and climate and energy policy. Dr Muslemani has broad experience of designing business models for the commercialisation of carbon removal technologies, including the integration of CCS into different sectors, in particular steel and waste-to-energy. He has previously taken up various climate and energy consultancy and academic and industry research roles, including lecturing in energy finance and policy at the University of Edinburgh and University College London and designing frameworks for assessing the quality of carbon credits in the voluntary carbon market.



#### **Camilla Thomson, The University of Edinburgh**

An Electrical and Mechanical Engineer by training, Camilla now researches the environmental impacts of energy. Currently this mostly involves developing better tools and techniques to analyse the climate change impact or carbon footprint of changes to the electricity system: whether new sustainable energy developments, new transmission lines or new market operations.

Camilla is also a keen advocate for diversity in Engineering. She founded the School's Molly Fergusson Initiative, and was named one of the Women's Engineering Society's Top 50 Women in Engineering 2020 - Sustainability.